Amendment to the claims:

1. (original) A linear amplifier comprising an input terminal and an analogue switch, with a switch input connected to the input terminal and a switch output connected to the switch input to provide negative feedback.

2. (original) A linear amplifier according to claim 1 wherein the switch output is connected to an output terminal.

3. (currently amended) A linear amplifier according to ~~any preceding~~ claim 1, wherein the switch is connected to a supply voltage.

4. (currently amended) A linear amplifier according to ~~any preceding~~ claim 1, wherein the switch input is connected to the input terminal via a first resistance.

5. (original) A linear amplifier according to claim 4, wherein the switch output is connected to the input terminal via a second resistance.

6. (original) A linear amplifier according to claim 5, wherein a closed loop gain of the amplifier is determined from the ratio of the second and first resistances.

7. (currently amended) A linear amplifier according to ~~any preceding~~ claim 1, in which the analogue switch is configured to operate at temperatures of at least 200°C.

8. (cancel)

9. (original) A Schmitt trigger comprising an input terminal and an analogue switch, with a switch input connected to the input terminal and a switch output connected to the switch input to provide positive feedback.

10. (original) A Schmitt trigger according to claim 9, wherein the switch output is connected to an output terminal.

11. (currently amended) A Schmitt trigger according to ~~any of claims~~ claim 9 ~~or 10~~, wherein the switch is connected to a supply voltage.

12. (currently amended) A Schmitt trigger according to ~~any of claims~~ claim 9 ~~to 11~~, wherein the switch input is connected to the input terminal via a first resistance.

13. (original) A Schmitt trigger according to claim 12, wherein the switch output is connected to the switch input via a second resistance.

14. (currently amended) A Schmitt trigger according to ~~any of claims~~claim 9 ~~to 13~~, in which the analogue switch is configured to operate at temperatures of at least 200°C.

15. (cancel)